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THE AMERICAN OYSTER

Crassostrea virginica Gmelin

By PAUL S. GALTISOFF

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Created in 1849, the United States Department of the Interior—a department of conservation—is concerned with the management, conservation, and development of the Nation's water, fish, wildlife, mineral, forest, and park and recreational resources. It also has major responsibilities for Indian and Territorial affairs.

As the Nation's principal conservation agency, the Department works to assure that nonrenewable resources are developed and used wisely, that park and recreational resources are conserved for the future, and that renewable resources make their full contribution to the progress, prosperity, and security of the United States—now and in the future.

PREFACE

The book on American oysters, *Crassostrea virginica*, of the Atlantic and Gulf States has been written for biologists, administrators of oyster resources of various States, public health officers, students of marine biology, and oyster growers who may be interested to learn about the life history and mode of living of this species. Trying to be scientifically accurate and at the same time to make the text understandable to those who have only elementary knowledge of biological sciences, I have attempted to present the facts and discuss various theories in the simplest language. Scientific terminology and the origin of terms has been explained wherever in my opinion the expression was not generally known to the reader. Various techniques used in anatomical, histological, and physiological studies have been described in detail. I hope the information provided in the text is sufficient for anyone who desires to engage in oyster research to apply the described techniques.

Each of the 18 chapters comprising the book can be read independently of others. The reader not familiar with oyster anatomy is advised, however, to read first chapter IV which gives a general description of the principal systems of organs. Selected bibliographical references accompany each chapter. In the course of preparing the text for publication a very large bibliography on oysters and related subjects was prepared and deposited in the library of the Bureau of Commercial Fisheries Biological Laboratory, Woods Hole, Mass. The file comprises over 6,000 subject and author cards.

The completion of the book would have been impossible without the assistance of Patricia A. Philpott, who took meticulous care in verifying all bibliographic references by comparing them with the originals; was responsible for final arrangement of illustrations and checking the captions; and several times retyped the revised text. Her interest, secretarial competence, and initiative are gratefully acknowledged.

The work on the bibliography could not have been accomplished without the extensive use of the library of the Marine Biological Laboratory, Woods Hole, Mass., and the valuable cooperation of the librarian, Mrs. Deborah Harlow.

My personal gratitude is due to many of my associates in the Government Service for their cooperation in field and laboratory work, and to the scientists who at my request were kind enough to read the chapters of the book within the scope of their respective specialization. Their valuable comments were taken into consideration. Histological preparations for chapters V to XIV inclusive were made by Eugenia Galteoff, whose voluntary service is greatly appreciated.

I acknowledge with thanks the comments on the text made by the following persons: W. R. Amberson, M. R. Carriker, D. P. Costello, R. L. Edwards, Catherine Henley, E. Higgins, B. Ketchum, Marie B. Lambert, F. L. Lambert, A. S. Merrill, X. Musacchia, H. Rehder, G. A. Rounsefell, H. B. Stenzel, and C. G. Wilber. Ann Martin was kind enough to edit the text from the point of view of clearness and style.

Credit for the majority of the illustrations is due to Ruth Von Arx whose artistic ability combined with a background in biology were instrumental in producing clear and accurate pictures of various structures.

Most of the experimental research work was made during the long period of my association with the Bureau of Commercial Fisheries Biological Laboratory, and the Marine Biological Laboratory, at Woods Hole, Mass. Additional laboratory studies were conducted at the Bureau of Commercial Fisheries Biological Laboratories at Milford, Conn., Beaufort, N.C., Pensacola, Fla., and at the Marine Laboratory of Stanford University, Pacific Grove, Calif.

During the period of nearly 40 years I had an opportunity to make occasional field surveys and conduct ecological studies on oyster bottoms of every coastal state of the United States, in the Hawaiian Islands, in the Gulf of Panama, and on Margarita Island, Venezuela. All field work was conducted with the valuable cooperation of local state governments.

Paul S. Galteoff

Woods Hole, Mass.